Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 5. This sheet replaces the original sheet of Fig. 5. In Figure 5, the label -- PRIOR ART -- has been added.

Attachment: Replacement Sheet

REMARKS

Applicant respectfully requests reconsideration of this application in view of the foregoing amendment and following remarks.

Objection

The Office Action indicates that Fig. 5 is not designated by a legend such as "Prior Art".

In response, Fig. 5 has been designated by --Prior Art-- as indicated above.

Applicant respectfully requests that this objection be withdrawn.

Status of the Claims

Claims 1-10 are pending in this application. Claim 1 is independent. All of the pending claims stand rejected. By this amendment, claims 1-10 are amended. No new matter has been added by this amendment.

Rejection under 35 U.S.C. §103

Claims 1, 2, 8, 9 and 10 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over "Admitted prior art/common knowledge in the art" and U.S. Patent No. 6,833,667 to Hamano et al. ("Hamano"). Claims 3-7 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over "Admitted prior art/common knowledge in the art" and U.S. Patent Application Publication No. 2004/0036410A1 to Park et al. ("Park").

As indicated above, claims 1-10 have been amended for further clarification. In particular, amended independent claim 1 is directed to an organic electroluminescence (EL) display having a transparent substrate, a color filter formed on the transparent substrate, wherein the color filter comprising a plurality of filter regions, each of the plurality of filter regions being

transmissible to light of a color different from the color of light transmissible through another filter region, a transparent electrode formed on the color filter, an organic thin layer comprising a light emitting layer formed on the transparent electrode, and a metal electrode formed on the organic thin layer. Amended claim 1 further recites that the metal electrode includes a bumpy surface formed with a plurality of irregular bumps and hollows on a surface contacting the organic thin layer for reflection scattering of ambient light which transmitted through the transparent substrate, the color filter, the transparent electrode and the organic thin layer.

An organic electroluminescence display of claim 1 is a bottom-emission type display. The display comprises a transparent substrate and a color filter, a transparent electrode, an organic thin layer and a metal electrode formed over the transparent substrate in this order. The organic thin layer includes a light emitting layer and is disposed between two electrodes, namely the transparent electrode and the metal electrode, for emitting light from the light emitting layer. In this structure, the light emitted from the light emitting layer transmits through the transparent electrode, the color filter and the transparent substrate to be extracted from a surface 6a of the transparent substrate. The color filter has a plurality of filter regions and each of the filter regions is transmissible to light of a color different from the color of light transmissible through another filter region so that light rays having different wavelengths are extracted from the regions of the surface 6a each associated with the filter regions.

Conventionally, metals having high light reflectivity were used for the materials for forming the metal electrode in electroluminescence devices. Accordingly, problems such as reflection of ambient views on the metal electrode, decreased contrast of the display due to ambient light reflection, and difficulty in displaying black color, have been recognized. See, for

example, the BACKGROUND OF THE INVENTION of this application. The present invention is devised to overcome such problems as decrease in contrast described above. In this regard, the metal electrode of the present invention includes a bumpy surface formed with a plurality of irregular bumps and hollows on a surface contacting said organic thin layer for reflection scattering of ambient light. When the ambient light which reached on the metal electrode by way of a filter region, for example through red filter region, the ambient light is attenuated if the light rays do not correspond to the transmission properties of the filter region. In this case, only red light reaches onto the metal electrode by transmitting through the transparent electrode and the organic thin layer. The red light is reflected into various directions by the irregular bumps and hollows that are formed on the metal electrode on a side contacting the organic thin layer. By providing the bumpy surface in an irregular form, the reflected light would not have a specific direction and only small amount of light is directed toward the light extracting surface. A portion of the light reflected on the metal electrode then directs again to the color filter and the light is further attenuated by transmitting through blue and green filter regions having transmissible to the color different from that of the color filter through which the light transmitted in the first place. In this way, the reflection of ambient light is significantly suppressed. See, for example, page 8 line 16 through page 10 line 12 of the original specification. In order to obtain the advantages described above, both of the feature of the bumpy surface on the metal electrode and the feature of the color filter need to be provided.

Hamano discloses an organic EL device allegedly having a structure showing improved visibility and a high degree of light efficiency. In an effort to improve the output efficiency of the generated light from the organic layer, Hamano's EL device includes an inverted V-like

structure formed on the "a quadrangular pyramid-like irregular structure 9" as shown in Fig. 4. However, Hamano is not directed to reflection by bumpy surface of the metal electrode for suppressing decrease in contrast and therefore fails to disclose all the elements of the present invention. Specifically, Hamano fails to disclose a color filter through which the ambient light transmits before and after reflection by bumpy surface of the metal electrode and which plays a role of attenuating the ambient light. Applicant notes that Hamano describes an irregular structure for increasing the area of the light emitting regions as compared to a certain area of the aperture. Hamano, in FIG. 4, shows a concept of reflecting a portion of light on the cathode 5 to direct the light toward the extracting side and further into the air, so that light that is emitted from the luminous layer 4 is efficiently extracted. The "irregular structure 9" of Hamano does not function similarly as the bumpy surface provided on the metal electrode of the present invention since as shown in FIG. 4 of Hamano, the "irregular structure 9" is regularly patterned structure.

On the other hand, the present invention provides reflection scattering property on the metal electrode so that the ambient light is reflected into various directions so that the reflected light returns and is incident on the color filter. See, for example, page 9 lines 2-4 of the instant application. The irregular structure 9 of Hamano would not reflect light in various directions. Further, absent the disclosure of the advantages of reflection of light into various directions, there is no motivation for the skilled artisan to combine irregular form of the metal electrode with attenuation of the ambient light by transmitting a color filter having a plurality of filter regions.

Park is directed to an active matrix organic electroluminescence display and merely discloses a color filter used for an organic electroluminescence display. Park, however, does not disclose or mention the measures for suppressing decrease in contrast. Specifically, Park fails to disclose bumpy surface of the metal electrode for attenuation of the ambient light. There is no motivation for a skilled artisan to form a bumpy surface on the metal electrode despite such process would increase a step of forming the display from the disclosure of Park since the publication does not at all related to suppression of decrease in contrast due to ambient light.

Accordingly, claim 1 as amended is believed neither anticipated by nor rendered obvious in view of the cited references (i.e., Hamano and Park), either taken alone or in combination, for at least the reasons discussed above. Reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §103(a) is respectfully requested.

Applicant has not individually addressed the rejections of the dependent claims because Applicant submits that the independent claims from which they respectively depend are in condition for allowance as set forth above. Applicant however reserves the right to address such rejections of the dependent claims should such be necessary.

Applicant believes that the application is in condition for allowance and such action is respectfully requested.

AUTHORIZATION

A petition for a one-month extension of time along with the associated fee is enclosed, extending the date for responding until May 1, 2006 (as April 29, 2006 falls on Saturday). Should an additional extension of time be required to render this paper timely filed, such extension is hereby petitioned and the Commissioner is authorized to charge any other fees necessitated by this Amendment, or credit any overpayment to our Deposit Account No. 13-4500 (Order No. 5000-5165). A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
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Dated: May 1, 2006

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